

## ABSTRACT

A diabetes management system for predicting a future blood glucose value of a patient and for recommending a corrective action to the patient when the future blood glucose value lies outside of a target range. The system includes a patient-operated apparatus for measuring blood glucose values and for storing data relating to insulin doses administered to the patient. The apparatus predicts the patient's future blood glucose value based upon the patient's current blood glucose value, the fraction of insulin action remaining from the insulin doses, and the patient's insulin sensitivity. The apparatus also determines the corrective action for the patient when the predicted blood glucose value lies outside of a target range. The system also includes a physician computer in communication with the apparatus for receiving the blood glucose values and insulin dose data and for calculating an adjusted insulin sensitivity for use in subsequent predictions.